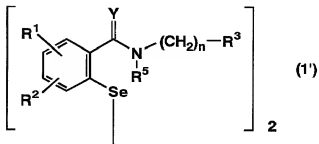
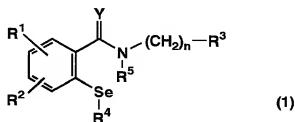


# ABSTRACT

A substrate for thioredoxin reductase which comprises a compound represented by the following general formula (I) or (I'):



wherein R<sup>1</sup> and R<sup>2</sup> independently represent a hydrogen atom, a halogen atom, a trifluoromethyl group and the like; R<sup>3</sup> represents an aryl group, an aromatic heterocyclic group and the like; R<sup>4</sup> represents a hydrogen atom, a hydroxyl group, a ·S-α-amino acid group and the like; R<sup>5</sup> represents a hydrogen atom or a C<sub>1</sub>-C<sub>8</sub> alkyl group; Y represents oxygen atom or sulfur atom; n represents an integer of from 0 to 5; and the selenium atom may be oxidized, whose example includes 2-phenyl-1,2-benzisoselenazol-3(2H)-one or a ring-opened form thereof. The substrate is reduced by thioredoxin reductase in the presence of NADPH and enhances peroxidase activity of thioredoxin reductase.